REMARKS

Claims 13 to 18 are added, and therefore claims 7 to 18 are currently pending.

Reconsideration of the application is respectfully requested based on the following remarks.

With respect to paragraph 4 of the Office Action, claims 7, 8, 10 and 12 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 3,211,961 to Bayly et al. (the "Bayly" reference).

As regards the anticipation rejections of the claims, to reject a claim under 35 U.S.C. § 102(b), the Office must demonstrate that each and every claim feature is identically described or contained in a single prior art reference. (See *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991)). As explained herein, it is respectfully submitted that the Office Action does not meet this standard, for example, as to all of the features of the claims. Still further, not only must each of the claim features be identically described, an anticipatory reference must also enable a person having ordinary skill in the art to practice the claimed invention, namely the claimed subject matter of the claims, as discussed herein. (See *Akzo, N.V. v. U.S.I.T.C.*, 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986)).

As further regards the anticipation rejections, to the extent that the Office Action may be relying on the inherency doctrine, it is respectfully submitted that to rely on inherency, the Office must provide a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics *necessarily* flows from the teachings of the applied art." (See M.P.E.P. § 2112; emphasis in original; and see *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int'f. 1990)). Thus, the M.P.E.P. and the case law make clear that simply because a certain result or characteristic may occur in the prior art does not establish the inherency of that result or characteristic. Accordingly, it is respectfully submitted that any anticipation rejection premised on the inherency doctrine is not sustainable absent the foregoing conditions.

Independent claim 7, as presented, is to an infrared source for a gas sensor including the features of <u>a first layer having first transmission characteristics produced by absorption of infrared radiation</u> and <u>a second layer having second transmission characteristics produced by absorption of infrared radiation</u>, in which a combination of the first and the second transmission characteristics effects a bandpass filter characteristics for an operating frequency

range, and <u>in which the first and second transmission characteristics are different</u>

<u>transmission characteristics</u>.

Independent claim 10 has features like those of claim 7.

The "Bayly" reference does not identically disclose (or even suggest) at least the above-emphasized claim features. Specifically, the "Bayly" reference does not identically disclose (or even suggest) the feature of an infrared source having *a first layer having a first transmission characteristic produced by absorption of infrared radiation* and a second layer *having a second transmission characteristic produced by absorption of infrared radiation*, in which the first and second transmission characteristics produced by absorption of infrared radiation are *different absorption characteristics*.

Instead, the "Bayly" reference has an infrared source 10 in FIG. 7 that produces infrared radiation that passes through a sample cell 11 and then separately through each of four different Fabry-Perot interferometer filters 12, 13, 14, and 15. However, nothing in this assortment of elements discloses *two different layers having two different infrared radiation absorption characteristics,* as provided for in the context of the claimed subject matter.

Firstly, the infrared source 10 doesn't qualify because the "Bayly" reference states that it only includes a resistive spiral 122 and a quartz window 124. However, the "Bayly" reference does not disclose that the quartz window 124 has a transmission characteristic produced by *absorption of infrared radiation*. Instead, it seems likely that the "Bayly" reference has selected the quartz window 124 so that it does <u>not</u> absorb infrared radiation.

Secondly, in making the present rejection, the Final Office Action (and the prior Office Action) appears to rely upon the Fabry-Perot filters 12, 13, 14, 15 as being supposedly akin to the first and second layers of the infrared source of claim 7. However, these elements also do not disclose two different layers having two different infrared radiation absorption characteristics. Instead, because filters 12, 13, 14, 15 are Fabry-Perot filters, they are based on *interference and reflection phenomena,* as is generally the case with Fabry-Perot filters. Therefore, filters 12, 13, 14, 15 of the "Bayly" reference do not identically disclose any layers having transmission characteristics produced by *absorption of infrared radiation, let alone two different layers having two different infrared radiation absorption characteristics,* as provided for in the context of the claimed subject matter.

Thirdly, the sample cell 11 also does not disclose the feature of *two different layers having two different infrared radiation absorption characteristics*. This is because at best the

sample cell has only a single absorption characteristic, not *two different absorption characteristics*.

Therefore, the features of claims 7 and 10, as presented, including the features identified above, are not identically disclosed (or suggested) by the "Bayly" reference. Accordingly, claims 7 and 10, as presented, are allowable, as are their dependent claims 8 and 12. It is therefore respectfully requested that this anticipation rejections be withdrawn.

With respect to paragraph 9, claims 9 and 11 were rejected under 35 U.S.C. § 103(a) as unpatentable over the "Bayly" reference in view of U.S. Patent No. 5,726,798 to Bushman (the "Bushman" reference).

To reject a claim as obvious under 35 U.S.C. § 103, the prior art must disclose or suggest each claim feature and it must also provide a motivation or suggestion for combining the features in the manner contemplated by the claim. (*See Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 934 (Fed. Cir. 1990), *cert. denied*, 111 S. Ct. 296 (1990); *In re Bond*, 910 F.2d 831, 834 (Fed. Cir. 1990)). Thus, the "problem confronted by the inventor must be considered in determining whether it would have been obvious to combine the references in order to solve the problem", *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 679 (Fed. Cir. 1998).

Claims 9 and 11 depend from independent claims 7 and 10, and are therefore also allowable for the reasons explained above, since the critical deficiencies of the "Bayly" reference with respect to these independent claims are not cured--and are not asserted to be cured-- by the "Bushman" reference. Specifically, the "Bushman" reference, much like the "Bayly" reference, only refers to transmission characteristics produced by *interference and reflection phenomena*. As such, the "Bushman" reference, much like the "Bayly" reference, is irrelevant to layers having transmission characteristics produced by absorption of infrared radiation.

Therefore, withdrawal of the obviousness rejections is respectfully requested.

New claims 13 to 18 do not add any new matter and are suggested by the present application. These claims depend from independent claims 7 and 10, and are therefore allowable at least for the same reasons explained above as to claims 7 and 10.

Accordingly, claims 7 to 18 are allowable.

CONCLUSION

Applicants respectfully submit that all pending claims of the present application are allowable. It is therefore respectfully requested that the objections and rejections be withdrawn. Prompt reconsideration and allowance of the present application are therefore respectfully requested.

Respectfully submitted,

Dated: 4/11/2008

By: _____
Gerard A. Messina
Reg. No. 35,952

KENYON & KENYON LLP
One Broadway
New York, New York 10004
(212) 425-7200

CUSTOMER NO. 26646